

A NEW *MEGASOMA* FROM BAJA CALIFORNIA, MEXICO
(COLEOPTERA: SCARABAEIDAE: DYNASTINAE)

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ABSTRACT

Megasoma lenczyi is a new species (type locality: 8 mi. N San Felipe, Baja California, Mexico), the 4th *Megasoma* species reported from Baja California. It is described and figured, and included in a revised key to *Megasoma*.

Recently, September 1973, Dr. Rudolph Lenczy of Green Valley, Arizona, had the good fortune to collect still another unnamed *Megasoma* in Baja California, Mexico. Three other species are known to occur in this same Mexican state, so a fourth species is an unexpected surprise.

In Alan Hardy's key to the species of *Megasoma* of North and Central America (Canadian Entomologist, Vol. 104, May 1972, p. 766), males of the new species key out to *M. thersites* Lec. and *M. vogti* Cartwright but differ in not having a pronotal horn and not having protruding anterior pronotal angles. Females of the new species are very similar to *M. sleeperi* Hardy but in *M. sleeperi* the clypeal teeth are not as broadly based, the median tubercle of the head is binodose, the pronotal punctures are slightly smaller, the posterior angles of the pronotum are subangulate, the fine punctures of the elytra are not as evident or numerous, and the three teeth of the anterior tibiae are more nearly equidistant from each other. In the new species, the two anterior teeth are very distinctly closer together. A modification of Hardy's key is presented following the description below.

Megasoma lenczyi Cartwright, **new species**

Fig. 1

Holotype Male. Length 30 mm, width 16 mm. Dark brown, shining through moderately dense covering of long (about 0.8 mm), appressed gray hair. Clypeus bidentate, teeth erect; very finely scabriculate, slightly arcuate, flattened margin between teeth about equal in length to lateral margin from tooth to posterior angle of ocular canthus; lateral margins of clypeus and ocular canthi cariniformly margined, sides of clypeus subangularly rounded outward, canthi in turn rounded outward at right angles to clypeus and curved backward to eyes. Head with strong, median, bifurcate cephalic horn 2-1/2 mm high, tips of horn recurved and divergent; surface, except for smooth tips of horn, very finely, densely punctate basally posterior to horn, with close, fine hair directed toward horn.

Pronotum without horn, broadly rounded at greatest width (13 mm), anterior angles right angled, not divergent, posterior angles rounded; smooth flat border anteriorly, fine cariniform borders at base and sides; midline length 9 mm with densely hairy, very weakly depressed small area at anterior 1/3, middle 1/3 slightly more convex with small, smooth, shiny, almost impunctate area immediately behind noticeable convexity, fol-

lowed by shallow, very closely, finely punctate, depressed area or sulcus to base; surface elsewhere with mixed punctures, from very coarse to very fine, often dense or scabriculate, coarse punctures anteriorly and laterally, curving around finely, densely punctured median convexity from anterior angles to base. Decumbent surface hair sparse across anterior surface, denser from just inside anterior angles curving around to middle at base, still denser inside lateral margin into posterior angles, leaving small bare spot in lateral fovea; hair over outside $1/8$ of base directed toward rounded posterior angles, other hair along base directed toward middle of base.

Elytra at humeri wider than pronotum, 14 mm, then quickly expanding to 16 mm and continuing almost parallel toward apex. Edges of elytra finely, cariniformly margined, with narrow, smooth, hairless border decreasing gradually from humeri to posterior $1/4$ where hair reaches edge. Humeri shining and hairless, as is the densely, very finely punctate scutellum; scutellum with narrow, smooth, shining, flat, lateral margins. Elytra otherwise completely covered by grayish hair which masks surface sculpture except for small circumscutellar area which shows some close mixed fine and moderate punctures.

Underside clothed with depressed, dense, grayish hair except narrowly along midline of metasternum and more widely at middle of abdominal segments, hairless areas of abdomen extremely finely, densely punctate. Pygidium convex, completely covered by fine dense hair, but thinly enough to see same extremely fine dense punctation so visible at middle of abdominal segments. Femora thinly clothed with similar hair. Tarsi as long as tibiae, 8 mm.

Allotype Female. Length 24 mm, width 13 mm. Dark brown, shining dorsal side practically without hair. Head differs from male in having clypeal teeth flattened posteriorly and having low, smooth, arcuate, transverse tubercle along middle $1/5$ of clypeo-frontal suture instead of cephalic horn. Surface, including ocular canthi, finely scabriculate except for smooth shining area over middle $1/3$ of base. Pronotum with small group of erect hairs at extreme sides, another small group at middle of base; basal marginal bead almost nonexistent; entire surface covered by coarse irregularly spaced punctures which become closer and run together approaching anterior angles, some fine scabriculate sculpture just inside lateral margins. Scutellum densely finely punctate with smooth margins. Elytra shining, without hair, sutural interval distinct, 3 others vaguely outlined; 1st interval coarsely distinctly punctate, punctures separated by 1-2 diameters, other intervals gradually less and less distinctly so, with punctures becoming smaller and shallower; entire elytra with intermixed fine punctures. Pygidium transversely convex and finely punctate over anterior $1/3$, then concave and finely scabriculate to apex; covered by very fine hair, longer and denser basally, especially so at sides, much shorter and sparser over concave area to apex. Underside as in male except that bare areas of abdominal segments are smoother and lack very dense fine punctures.

Holotype male, allotype female and two female paratypes collected 12 September 1973, clinging to an *Acacia* by side of road, 8 miles north of San Felipe, Baja California, Mexico, by Dr. Rudolph Lenczy for whom the species is named. One male paratype from same locality, 8 Oct. 1973, by D. G. Marqua. The larger paratypes measure 31 mm in length by 18 mm in

width. Holotype, allotype and one paratype in Dr. Lenczy's Collection, with the understanding that the holotype will be returned eventually to the National Museum of Natural History collection. Paratypes in National Museum Collection.



Fig. 1. Dorsal and lateral views of male (top) and female (bottom) of *Megasoma lenczyi* Cartwright, new species.

MODIFICATION OF HARDY'S KEY TO *Megasoma* OF
NORTH AND CENTRAL AMERICA

1. Individuals with a prominent horn on the front, this horn bifurcate at the apex; prothorax usually with anterior angles produced and forming prominent projections (males) 2
- 1'. Individuals with no more than tubercles on the front; prothorax unarmed (females) 13
- 2(1). Upper surface of elytra and portions of head and thorax clothed with fine tomentose pile, or elytra and thorax glabrous; if glabrous a shiny or dull uniform black; over 60 mm in length 3
- 2'. Upper surface of elytra either with recumbent hairs or elytra glabrous; species either not black, or species with a well developed prothoracic horn; length under 50 mm (*thersites* group)..... 6
- 3(2). Species with glabrous elytra and prothorax. Panama and South America 4
- 3'. Species with portions of prothorax and elytra covered with tomentose covering 5
- 4(3). Anterior angles of the prothorax directed anteriorly, parallel to each other; dull black. Panama and South America *M. actaeon* (Linnaeus)
- 4'. Anterior angles of prothorax diverging anteriorly; highly glossy black. South America *M. mars* (Reiche)
- 5(3'). Anterior angles of prothorax produced anteriorly. From Cordoba in Veracruz, Mexico to Panama..... *M. elephas elephas* (Fabr.)
- 5'. Anterior angles of prothorax produced laterally. From Sinaloa south to Michoacan, Mexico, along the coast..... *M. elephas occidentalis* Bolivar y Pieltain *et al.*
- 6(2'). Upper surface with recumbent pale hair 11
- 6'. Upper surface glabrous 7
- 7(6'). Prothorax with a median, anteriorly directed horn. Southern Sonora and northern Sinaloa, Mexico *M. pachecoi* Cartwright
- 7'. Prothorax at most with a median tubercle 8
- 8(7'). Anterior angles of prothorax produced into acute projections; cephalic horn longer than greatest length of head 9
- 8'. Anterior angles of prothorax normal; cephalic horn reduced, less than length of head 10
- 9(8). Shining reddish brown. Baja California Sur (female unknown) *M. lecontei* Hardy
- 9'. Dull black. Southern Arizona *M. punctulatus* Cartwright
- 10(8'). Prothorax with a small smooth spot just posterior to midpoint, and anterior to the smooth spot a small swelling in place of prothoracic horn in other species..... *M. cedrosa* Hardy
- 10'. Prothorax without smooth spot or swelling *M. sleeperi* Hardy
- 11(6). Anterior angles of prothorax normal, not produced anteriorly *M. lenczyi* Cartwright, new species
- 11'. Anterior angles of prothorax produced forward 12

- 12(11'). Distance between anterior angles of prothorax nearly 2 times width of head. Baja California Sur..... *M. thersites* LeConte
- 12'. Distance between anterior angles of prothorax less than 1-1/2 times width of head. Texas *M. vogti* Cartwright
- 13(1'). Species over 50 mm in length 14
- 13'. Species under 50 mm in length (*thersites* group) (females of *M. lecontei* Hardy unknown) 17
- 14(13). Elytra with apical two-thirds tomentose; prothorax rugose, but without a posterior "crest;" with occasional lateral pubescence..... 16
- 14'. Elytra glabrous; prothorax with very rugose sculpture, and a definite central "crest" posteriorly. Panama and South America 15
- 15(14'). Upper surface glossy; head with a binodose cephalic tubercle. South America *M. mars* (Reiche)
- 15'. Upper surface dull; head with an acute cephalic tubercle. Panama and South America *M. actaeon* (Linnaeus)
- 16(14). From Sinaloa, Mexico, south to Michoacan, Mexico, along the coast *M. elephas occidentalis* Bolivar y Pieltain, et. al.
- 16'. From Cordoba, Vera Cruz, Mexico, and Arriaga, Chiapas, Mexico, east and south to Panama .. *M. elephas elephas* (Fabricius)
- 17(13'). Upper surface of apical portions of elytra and often lateral areas of prothorax with recumbent pale hair. Baja California 18
- 17'. Upper surface of elytra glabrous 20
- 18(17). Clypeal tubercle arising out of clypeal plane, usually not binodose. Clypeus semicircularly emarginate, with angles produced 19
- 18'. Cephalic tubercle on a well developed tumid process; tubercle impressed to such a degree as to be binodose. Anterior angles of clypeus spiniform, arising abruptly from the rather straight leading edge of the clypeus. Southern Texas.....
..... *M. vogti* Cartwright
- 19(18). Scutellum densely, finely punctate with flat, smooth shiny margins. Baja California *M. lenczyi* Cartwright, new species
- 19'. Scutellum shining, minutely punctate or with few punctures just inside the flat lateral margins 22
- 20(17'). Terminal concave area of pygidium with very few hairs or completely glabrous 21
- 20'. Terminal concave area of pygidium hairy. Southern California *M. sleeperi* Hardy
- 21(20). Clypeal tubercle transverse, often binodose. Southern Arizona *M. punctulatus* Cartwright
- 21'. Clypeal tubercle acute. Sonora and Sinaloa, Mexico.....
..... *M. pachecoi* Cartwright
- 22(19'). Tubercle on head impressed in center to some degree, usually sufficient to give the impression of 2 tubercles; or tubercle transverse, blunt. Southern Baja California Sur.....
..... *M. thersites* LeConte
- 22'. Tubercle on head acute, not transverse or blunt.....
..... *M. cedrosa* Hardy